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REMARKS

This paper is responsive to a non-final Office Action dated January 8, 2004. Claims 1, 5-25, 27-33, 36, 37, and 39 were examined. Claims 1, 5-12, 14-25, 27-33, 36, 37, and 39 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,141,239 to Turner in view of U.S. Patent No. 6,404,756 to Whitehill et al. Claim 13 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Turner in view of Whitehill, in further view of U.S. Patent No. 6,212,194 to Hsieh.

Claim 1 has been cancelled.

Claim 5 has been amended to recite that the predetermined criteria includes security needs of the data information packet. Regarding amended claim 5, Applicants respectfully maintain that Turner, alone or in combination with Whitehill or other references of record, fails to teach or suggest that

the predetermined criteria includes security needs of
the data information packet

as recited by amended claim 5. Turner teaches a best-efforts channel and a real-time channel (Abstract). Whitehill teaches multiple parallel data channels (col. 5, lines 11-12) and "dedicating one channel for use as the reservation channel" (col. 5, lines 15-19). The Office Action admits that

[t]he combination of Turner and Whitehill et al. does not expressly disclose where the security needs of a packet are used in determining which channel to send the packet over (and also taking into account protocol information). However, it would have been obvious to a person of ordinary skill in the art at the time of the invention to also take into security concerns when deciding which channel to send the data over.

Merely stating that the combination of Turner and Whitehill et al. can be modified to operate similarly to the claimed invention, without providing a prior art reference (or references when combined) that teaches or suggests the claimed invention, is not sufficient to establish *prima facie* obviousness. See MPEP §2143.01. Applicants respectfully maintain that the combination of Turner with Whitehill or other references of record fails to teach or suggest selecting for

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transmission on one of the first and second transmission channels according to security needs of the data information packet, as required by amended claim 5. For at least this reason, Applicants believe that claim 5 is allowable over Turner, alone or in combination with other references of record. Accordingly, Applicants respectfully request that the rejection of claim 5, and all claims dependent thereon be withdrawn.

Claim 6 has been amended to depend from claim 5.

Regarding claim 8, Applicants respectfully maintain that the Office Action fails to point out where Turner, alone or in combination with Whitehill, teaches or suggests, and Applicants respectfully maintain that Turner, alone or in combination with Whitehill, fails to teach or suggest that

each data information packet transmitted across the network is selected for transmission on one of the first and second transmission channels according to predetermined criteria and wherein the predetermined criteria includes a type of operation associated with the data information packet and wherein the type of operation includes a synchronization operation,

as recited in claim 8. For at least this reason, Applicants believe that claim 8 is allowable over Turner, alone or in combination with other references of record. Accordingly, Applicants respectfully request that the rejection of claim 8, and all claims dependent thereon be withdrawn.

Claims 10-12 are amended to depend from claim 5.

Regarding claim 11, Applicants respectfully maintain that Turner, alone or in combination with other references of record fails to teach or suggest that

at least one of the sending node and the receiving node includes a plurality of buffer descriptors identifying memory segments containing data,

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as recited in claim 11. The Office Action states that "Turner does not expressly disclose that one of the sending and receiving nodes includes a plurality of buffer descriptors identifying memory segments containing data. However, it is well-known in the art that sending and receiving nodes can have buffers (and buffer descriptors)." Applicants respectfully request that the Examiner provide references in support of these positions and explain how these references can be properly combined with other references of record to teach Applicants' claimed nodes including a plurality of buffer descriptors identifying memory segments containing data, as revealed in claim 11.

Claim 14 has been amended to include limitations of claim 17. Applicants respectfully maintain that Turner, alone or in combination with Whitehill or other references of record, fails to teach or suggest that

the grant indication is transferred with a higher priority across the low latency channel than other low latency traffic,

as recited by amended claim 14. The Office Action states that "[t]he combination of Turner and Whitehill et al. does not expressly disclose sending the grant indication with a higher priority than the rest of the traffic on the real-time channel, but it would have been obvious to do so." Merely stating that the combination of Turner and Whitehill et al. can be modified to operate similarly to the claimed invention, without providing a prior art reference (or references when combined) that teaches or suggests the claimed invention, is not sufficient to establish *prima facie* obviousness. See MPEP §2143.01. Applicants respectfully maintain that the combination of Turner with Whitehill or other references of record fails to teach or suggest transferring a grant indication with a higher priority across the low latency channel than other low latency traffic, as recited by amended claim 14. For at least this reason, Applicants believe that amended claim 14 is allowable over Turner, alone or in combination with other references of record. Accordingly, Applicants respectfully request that the rejection of amended claim 14, and all claims dependent thereon be withdrawn.

Claim 17 has been cancelled.

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Claim 19 has been amended to include limitations of claim 20. Applicants respectfully maintain that Turner, alone or in combination with Whitehill or other references of record, fails to teach or suggest that

a receiving node sends an acknowledge indication over the low latency channel, the acknowledge indication indicating successful receipt of information sent over the high bandwidth channel and wherein the acknowledge indication is transferred with a higher priority across the low latency channel than other low latency traffic,

as recited by amended claim 19. The Office Action states that "the combination of Turner and Whitehill et al. does not expressly disclose sending the ACK with a higher priority than the other real-time traffic, but it would have been obvious to send the ACK with a higher priority."

Merely stating that the combination of Turner and Whitehill et al. can be modified to operate similarly to the claimed invention, without providing a prior art reference (or references when combined) that teaches or suggests the claimed invention, is not sufficient to establish *prima facie* obviousness. See MPEP §2143.01. Applicants respectfully maintain that the combination of Turner with Whitehill or other references of record fails to teach or suggest transferring the acknowledge indication with a higher priority across the low latency channel than other low latency traffic, as recited by amended claim 19. For at least this reason, Applicants believe that amended claim 19 is allowable over Turner, alone or in combination with other references of record. Accordingly, Applicants respectfully request that the rejection of amended claim 19, and all claims dependent thereon be withdrawn.

Claim 20 has been cancelled.

Claim 22 has been amended to include limitations of claim 24. Applicants respectfully maintain that Turner, alone or in combination with Whitehill or other references of record, fails to teach or suggest that

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transmitting control information relating to network protocol over one of the first and second transmission channels along with one of the first and second groups of data traffic,

as recited by amended claim 22. The Office Action states that

[t]he combination of Turner and Whitehill et al. does not expressly disclose where the security needs of a packet are used in determining which channel to send the packet over (and also taking into account protocol information). However it would have been obvious to a person of ordinary skill in the art at the time of the invention to also take into [sic] security concerns when deciding which channel to send the data over.

Merely stating that the combination of Turner and Whitehill et al. can be modified to operate similarly to the claimed invention, without providing a prior art reference (or references when combined) that teaches or suggests the claimed invention, is not sufficient to establish *prima facie* obviousness. See MPEP §2143.01. Applicants respectfully maintain that the combination of Turner with Whitehill or other references of record fails to teach or suggest transmitting control information relating to network protocol over one of the first and second transmission channels along with one of the first and second groups of data traffic, as recited by amended claim 22. For at least this reason, Applicants believe that amended claim 22 is allowable over Turner, alone or in combination with other references of record. Accordingly, Applicants respectfully request that the rejection of amended claim 22, and all claims dependent thereon be withdrawn.

Claim 24 has been cancelled.

Claim 25 has been amended to depend from claim 22.

Regarding claim 27, Applicants respectfully maintain that Turner, alone or in combination with Whitehill or other references of record, fails to teach or suggest

transferring the control information across the low latency channel with a higher priority than the first group of data traffic transferred across the low

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latency channel, the control information being related to scheduling of the high bandwidth channel

as recited by claim 27. The Office Action states that "it is advantageous to send certain types of information with higher priorities because the certain types of information are more time-critical than other types of information. Control information would qualify as this type of information." Merely stating that the combination of Turner and Whitehill et al. can be modified to operate similarly to the claimed invention, without providing a prior art reference (or references when combined) that teaches or suggests the claimed invention, is not sufficient to establish *prima facie* obviousness. See MPEP §2143.01. Applicants respectfully maintain that the combination of Turner with Whitehill or other references of record fails to teach or suggest transferring the acknowledge indication with a higher priority across the low latency channel than other low latency traffic, as recited by amended claim 27. For at least this reason, Applicants believe that amended claim 27 is allowable over Turner, alone or in combination with other references of record. Accordingly, Applicants respectfully request that the rejection of amended claim 27, and all claims dependent thereon be withdrawn.

Regarding claim 29, Applicants respectfully maintain that Turner, alone or in combination with Whitehill or other references of record, fails to teach or suggest transmitting smaller sized data packets across the low latency channel with limited scheduling and transmitting highly scheduled large sized data packets across the high bandwidth channel,

as recited in claim 29. The Office Action relies on col. 5, lines 60-67 of Turner to supply this teaching. These portions of Turner teach transmitting information consisting of the speaker's changing voice over the real-time, high-cost channel and sending background noise or other slowly varying signals over a lower cost line. However, Turner fails to teach or suggest how this information is scheduled over these lines. Thus Turner, alone or in combination with other references of record, fails to teach or suggest the limitations as recited in claim 29. For at least this reason, Applicants believe that claim 29 is allowable over Turner, alone or in combination

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with other references of record. Accordingly, Applicants respectfully request that the rejection of claim 29, and all claims dependent thereon be withdrawn.

Regarding claim 30, Applicants respectfully maintain that Turner, alone or in combination with Whitehill or other references of record, fails to teach or suggest

transmitting the first group of the data traffic over the first transmission channel and the second group of the data traffic over the second transmission channel wherein the predetermined criteria includes a security level of the data packet and wherein one of the first and second transmission channels is coupled to transmit control information relating to network protocol according to the predetermined criteria,

as recited in claim 30. The Office Action states that

[t]he combination of Turner and Whitehill et al. does not expressly disclose where the security needs of a packet are used in determining which channel to send the packet over (and also taking into account protocol information). However it would have been obvious to a person of ordinary skill in the art at the time of the invention to also take into [sic] security concerns when deciding which channel to send the data over.

Merely stating that the combination of Turner and Whitehill et al. can be modified to operate similarly to the claimed invention, without providing a prior art reference (or references when combined) that teaches or suggests the claimed invention, is not sufficient to establish *prima facie* obviousness. See MPEP §2143.01. Applicants respectfully maintain that the combination of Turner with Whitehill or other references of record fails to teach or suggest organizing and transmitting information according to a security level of the information, as recited in claim 30. For at least this reason, Applicants believe that claim 30 is allowable over Turner, alone or in combination with other references of record. Accordingly, Applicants respectfully request that the rejection of claim 30, and all claims dependent thereon be withdrawn.

Regarding claim 32, Applicants respectfully maintain that Turner, alone or in combination with other references of record fails to teach or suggest that

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at least one of the transmission channels is associated with a plurality of lists of buffer descriptors, the lists of buffer descriptors related to a plurality of memory segments,

as recited in claim 32. The Office Action states that "Turner does not expressly disclose that one of the sending and receiving nodes includes a plurality of buffer descriptors identifying memory segments containing data. However, it is well-known in the art that sending and receiving nodes can have buffers (and buffer descriptors)." Applicants respectfully request that the Examiner provide references in support of these positions and explain how these references can be properly combined with other references of record to teach Applicants' claimed transmission channels associated with a plurality of lists of buffer descriptors, the lists of buffer descriptors related to a plurality of memory segments, as revealed in claim 32.

Claim 33 has been amended to recite

wherein the predetermined criteria includes a security level of the data traffic.

Applicants believe that this limitation distinguishes claim 33 over Turner, alone or in combination with other references of record. Accordingly, respectfully request that the rejection of claim 33, and all claims dependent thereon be withdrawn.

Claim 36 has been amended to correct a typographical error and to incorporate limitations of claim 37. Applicants respectfully maintain that Turner, alone or in combination with other references of record fails to teach or suggest that

the code writes the data into one of the two independent transmission channels by writing into a buffer associated therewith,

as recited by amended claim 36. The Office Action states that "Turner does not expressly disclose that one of the sending and receiving nodes includes a plurality of buffer descriptors identifying memory segments containing data. However, it is well-known in the art that sending

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and receiving nodes can have buffers (and buffer descriptors)." Applicants respectfully request that the Examiner provide references in support of these positions and explain how these references can be properly combined with other references of record to teach Applicants' claimed code that writes data into one of two independent transmission channels by writing into a buffer associated therewith, as revealed in amended claim 36.

Claim 37 has been cancelled.

Claim 13 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Turner in view of Whitehill, in further view of U.S. Patent No. 6,212,194 to Hsieh. Claim 13 is amended to depend from claim 5, which Applicants maintain is allowable over the art of record as discussed above. For at least this reason, Applicants believe that amended claim 13 is allowable over Turner, alone or in combination with other references of record. Accordingly, Applicants respectfully request that the rejection of claim 13 be withdrawn.

In summary, claims 5-16, 18, 19, 21-23, 25, 27-33, 36, and 39 are in the case. All claims are believed to be allowable over the art of record, and a Notice of Allowance to that effect is respectfully solicited. Nonetheless, if any issues remain that could be more efficiently handled by telephone, the Examiner is requested to call the undersigned at the number listed below.

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Nicole Teitler Cave 4/8/04
Date

Respectfully submitted,

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Commissioner for Patents
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Nicole Teitler Cave 4/8/04
Nicole Teitler Cave Date

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